查询MF-MSMF010供应商

Features

- 100 % compatible with all previous generations of 1812 SMT devices
- Compatible with Pb and Pb-free solder reflow profiles
- Surface mount packaging for automated assembly
- Agency recognition:

Applications

High Density Circuit Board Applications:

- Hard disk drives
- PC motherboards
- PC peripherals
- Point-of-sale (POS) equipment
- PCMCIA cards
- USB ports

MF-MSMF Series - PTC Resettable Fuses

Electrical Characteristics

Model	V max. Volts	I max. Amps	I_{hold}	I_{trip}	Resistance		Max. Time To Trip		Tripped Power Dissipation
			Amperes at 23 °C		Ohms at 23 °C		Amperes at 23 °C	Seconds at 23 °C	Watts at 23 °C
			Hold	Trip	$R_{Min.}$	$R_{1Max.}$			Typ.
MF-MSMF010	60.0	40	0.10	0.30	0.70	15.00	0.5	1.50	0.8
MF-MSMF014	60.0	40	0.14	0.34	0.40	6.50	1.5	0.15	0.8
MF-MSMF020	30.0	80	0.20	0.40	0.40	6.00	6.0	0.06	0.8
MF-MSMF030	30.0	10	0.30	0.60	0.30	3.00	8.0	0.10	0.8
MF-MSMF050	15.0	100	0.50	1.00	0.15	1.00	8.0	0.15	0.8
MF-MSMF075	13.2	100	0.75	1.50	0.11	0.45	8.0	0.20	0.8
MF-MSMF075/24	24.0	40	0.75	1.50	0.11	0.45	8.0	0.20	0.8
MF-MSMF110	6.0	100	1.10	2.20	0.04	0.21	8.0	0.30	0.8
MF-MSMF110/16	16.0	100	1.10	2.20	0.04	0.21	8.0	0.30	0.8
MF-MSMF125	6.0	100	1.25	2.50	0.035	0.14	8.0	0.40	0.8
MF-MSMF150	6.0	100	1.50	3.00	0.03	0.120	8.0	0.5	0.8
MF-MSMF160	8.0	100	1.60	2.80	0.035	0.099	8.0	2.0	0.8
MF-MSMF200	6.0	100	2.00	4.00	0.020	0.100	8.0	3.0	0.8
MF-MSMF250/16	16.0	100	2.50	5.00	0.015	0.100	8.0	5.0	0.8
MF-MSMF260	6.0	100	2.60	5.20	0.015	0.080	8.0	5.0	0.8

Environmental Characteristics

Operating Temperature .....-40 °C to +85 °C
Maximum Device Surface Temperature
in Tripped State .....125 °C
Passive Aging.....+85 °C, 1000 hours .....±5 % typical resistance change
Humidity Aging.....+85 °C, 85 % R.H. 1000 hours .....±5 % typical resistance change
Thermal Shock.....+85 °C to -40 °C, 20 times .....±10 % typical resistance change
Solvent Resistance .....MIL-STD-202, Method 215 .....No change
Vibration .....MIL-STD-883C, Method 2007.1, ...No change
Condition A

Test Procedures And Requirements For Model MF-MSMF Series

Test	Test Conditions	Accept/Reject Criteria
Visual/Mech.	Verify dimensions and materials	Per MF physical description
Resistance	In still air @ 23 °C	Rmin ≤ R ≤ R1max
Time to Trip	At specified current, Vmax, 23 °C	T ≤ max. time to trip (seconds)
Hold Current	30 min. at Ihold	No trip
Trip Cycle Life	Vmax, Imax, 100 cycles	No arcing or burning
Trip Endurance	Vmax, 48 hours	No arcing or burning
Solderability	ANSI/J-STD-002	95 % min. coverage

UL File Number E174545
http://www.ul.com/ Follow link to Certifications, then UL File No., enter E174545
CSA File Number.....CA110338
http://directories.csa-international.org/ Under “Certification Record” and “File Number” enter 110338-0-000
TÜV Certificate Number.....R 02057213
http://www.tuvdotcom.com/ Follow link to “other certificates”, enter File No. 2057213

Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

Additional Features

- Standard 4532 mm (1812 mils) footprint
- Symmetrical design
- Patents pending

MF-MSMF Series - PTC Resettable Fuses

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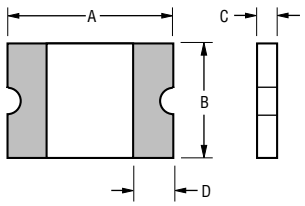
Product Dimensions

Model	A		B		C		D
	Min.	Max.	Min.	Max.	Min.	Max.	Min.
MF-MSMF010	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.70 (0.028)	1.10 (0.043)	0.30 (0.012)
MF-MSMF014	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.70 (0.028)	1.10 (0.043)	0.30 (0.012)
MF-MSMF020	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.70 (0.028)	1.10 (0.043)	0.30 (0.012)
MF-MSMF030	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.70 (0.028)	1.10 (0.043)	0.30 (0.012)
MF-MSMF050	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.55 (0.015)	0.85 (0.033)	0.30 (0.012)
MF-MSMF075	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.55 (0.015)	0.85 (0.033)	0.30 (0.012)
MF-MSMF075/24	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.55 (0.015)	0.85 (0.033)	0.30 (0.012)
MF-MSMF110	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.45 (0.018)	0.75 (0.030)	0.30 (0.012)
MF-MSMF110/16	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.45 (0.018)	0.75 (0.030)	0.30 (0.012)
MF-MSMF125	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.55 (0.015)	0.85 (0.033)	0.30 (0.012)
MF-MSMF150	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.55 (0.015)	0.85 (0.033)	0.30 (0.012)
MF-MSMF160	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.55 (0.015)	0.85 (0.033)	0.30 (0.012)
MF-MSMF200	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.55 (0.015)	0.85 (0.033)	0.30 (0.012)
MF-MSMF250/16	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	1.00 (0.039)	2.00 (0.078)	0.30 (0.012)
MF-MSMF260	4.37 (0.172)	4.73 (0.186)	3.07 (0.121)	3.41 (0.134)	0.48 (0.019)	0.85 (0.033)	0.30 (0.012)

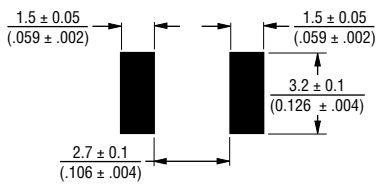
Packaging:
MF-MSMF010 through MF-MSMF030 = 1500 pcs. per reel.
MF-MSMF050 through MF-MSMF200 & MF-MSMF260 = 2000 pcs. per reel.
MF-MSMF250/16 = 1000 pcs. per reel.

UNIT = MM (INCHES)

Top and Bottom View ***Side View***



Recommended Pad Layout



Terminal material:
Electroless Ni under immersion Au

Termination pad solderability:
Standard Au finish:
Meets ANSI/J-STD-002 Category 2.

Optional Sn finish:
Meets ANSI/J-STD-002 Category 3.

Recommended Storage:
40 °C max./70 % RH max.

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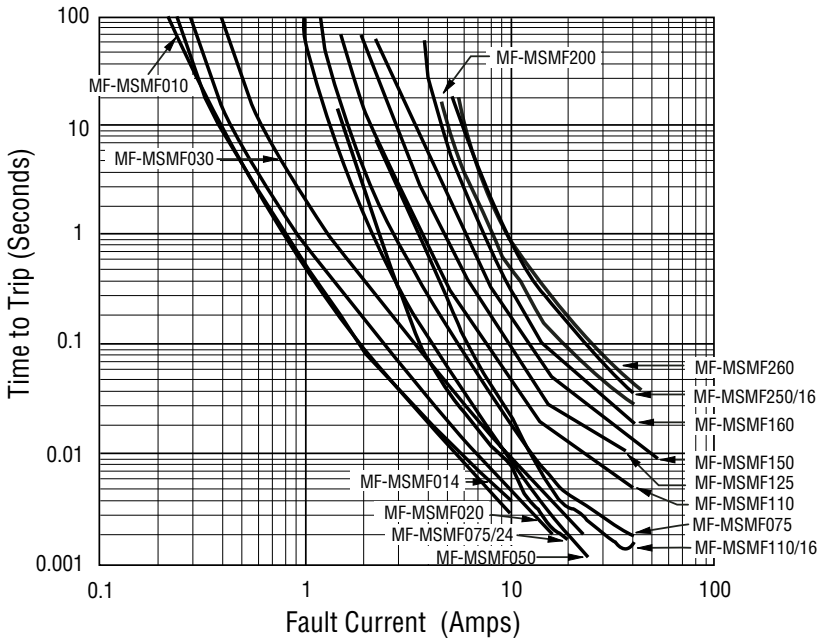
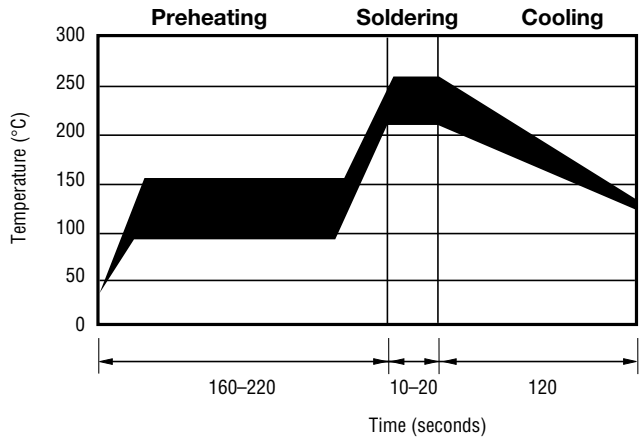
Customers should verify actual device performance in their specific applications.

Typical Time to Trip at 23 °C



The Time to Trip curves represent typical performance of a device in a simulated application environment. Actual performance in specific customer applications may differ from these values due to the influence of other variables.

Solder Reflow Recommendations



Notes:

- MF-MSMF models cannot be wave soldered.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.
- Compatible with Pb and Pb-free solder reflow profiles.

How to Order

MF - MSMF 075/24 T - 2

Multifuse® Product Designator

Series
MSMF = 4532 mm (1812 mils) Surface Mount Component

Hold Current, I_{hold}
010-260 (0.10 Amps - 2.60 Amps)

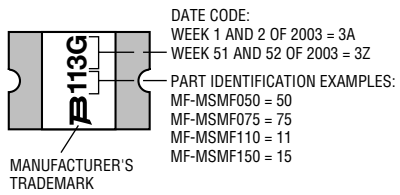
Higher Voltage Option
__ = Standard Voltage
/16 = 16 Volt Rated
/24 = 24 Volt Rated

Optional Terminal Finish
__ = Standard Au Finish
T = Optional Sn Finish

Packaging
Packaged per EIA 481-1
-2 = Tape and Reel

Typical Part Marking

Represents total content. Layout may vary.



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Thermal Derating Chart - I_{hold} / I_{trip} (Amps)

Model	Ambient Operating Temperature								
	-40 ˚C	-20 ˚C	0 ˚C	23 ˚C	40 ˚C	50 ˚C	60 ˚C	70 ˚C	85 ˚C
MF-MSMF010	0.16 / 0.32	0.14 / 0.28	0.12 / 0.24	0.11 / 0.22	0.08 / 0.16	0.07 / 0.14	0.06 / 0.12	0.05 / 0.10	0.03 / 0.06
MF-MSMF014	0.23 / 0.52	0.19 / 0.45	0.17 / 0.40	0.14 / 0.34	0.12 / 0.29	0.10 / 0.25	0.09 / 0.23	0.08 / 0.21	0.06 / 0.16
MF-MSMF020	0.29 / 0.58	0.26 / 0.52	0.23 / 0.46	0.20 / 0.40	0.17 / 0.34	0.15 / 0.30	0.14 / 0.28	0.12 / 0.24	0.10 / 0.20
MF-MSMF030	0.44 / 0.88	0.39 / 0.78	0.35 / 0.70	0.30 / 0.60	0.26 / 0.52	0.23 / 0.46	0.21 / 0.42	0.18 / 0.36	0.15 / 0.30
MF-MSMF050	0.77 / 1.54	0.68 / 1.36	0.59 / 1.18	0.50 / 1.00	0.44 / 0.88	0.40 / 0.80	0.37 / 0.74	0.33 / 0.66	0.29 / 0.58
MF-MSMF075	1.15 / 2.30	1.01 / 2.02	0.88 / 1.76	0.75 / 1.50	0.65 / 1.30	0.60 / 1.20	0.55 / 1.10	0.49 / 0.98	0.43 / 0.86
MF-MSMF075/24	1.15 / 2.30	1.01 / 2.02	0.88 / 1.76	0.75 / 1.50	0.65 / 1.30	0.60 / 1.20	0.55 / 1.10	0.49 / 0.98	0.43 / 0.86
MF-MSMF110	1.59 / 3.18	1.43 / 2.86	1.26 / 2.52	1.10 / 2.20	0.95 / 1.90	0.87 / 1.74	0.80 / 1.60	0.71 / 1.42	0.60 / 1.20
MF-MSMF110/16	1.59 / 3.18	1.43 / 2.86	1.26 / 2.52	1.10 / 2.20	0.95 / 1.90	0.87 / 1.74	0.80 / 1.60	0.71 / 1.42	0.60 / 1.20
MF-MSMF125	1.80 / 3.61	1.63 / 3.25	1.43 / 2.86	1.25 / 2.50	1.08 / 2.16	0.99 / 1.98	0.91 / 1.82	0.81 / 1.62	0.68 / 1.36
MF-MSMF150	2.17 / 4.34	1.95 / 3.90	1.72 / 3.44	1.50 / 3.00	1.30 / 2.59	1.18 / 2.37	1.09 / 2.18	0.97 / 1.94	0.82 / 1.64
MF-MSMF160	2.30 / 5.00	2.20 / 4.40	1.90 / 3.80	1.60 / 2.80	1.45 / 2.90	1.30 / 2.60	1.15 / 2.30	1.03 / 2.06	0.91 / 1.82
MF-MSMF200	3.08 / 5.40	2.71 / 4.74	2.35 / 4.11	2.00 / 3.50	1.80 / 3.15	1.60 / 2.80	1.50 / 2.63	1.40 / 2.40	1.25 / 2.10
MF-MSMF250/16	3.9 / 7.8	3.42 / 6.84	2.96 / 5.92	2.50 / 5.00	2.24 / 4.48	1.98 / 3.96	1.85 / 3.70	1.29 / 2.58	0.94 / 1.88
MF-MSMF260	4.00 / 7.98	3.52 / 7.01	3.06 / 6.09	2.60 / 5.15	2.34 / 4.64	2.08 / 4.13	1.95 / 3.87	1.39 / 2.74	1.04 / 2.05

BOURNS®

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MF-MSMF Series Tape and Reel Specifications

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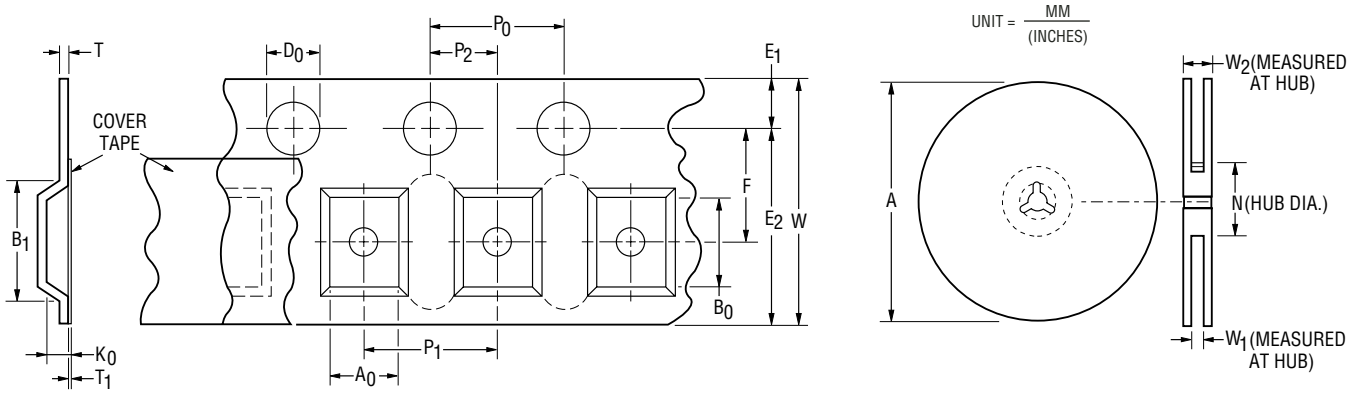
Tape Dimensions	MF-MSMF010 - MF-MSMF030 per EIA-481-1	MF-MSMF050 - MF-MSMF260 per EIA 481-1	MF-MSMF250/16 per EIA 481-1
W	12.0 ± 0.30 (0.472 ± 0.012)	12.0 ± 0.30 (0.472 ± 0.012)	12.0 ± 0.30 (0.472 ± 0.012)
P_0	4.0 ± 0.10 (0.157 ± 0.004)	4.0 ± 0.10 (0.157 ± 0.004)	4.0 ± 0.10 (0.157 ± 0.004)
P_1	8.0 ± 0.10 (0.315 ± 0.004)	8.0 ± 0.10 (0.315 ± 0.004)	8.0 ± 0.10 (0.315 ± 0.004)
P_2	2.0 ± 0.05 (0.079 ± 0.002)	2.0 ± 0.05 (0.079 ± 0.002)	2.0 ± 0.05 (0.079 ± 0.002)
A_0	3.58 ± 0.10 (0.141 ± 0.004)	3.66 ± 0.15 (0.144 ± 0.006)	3.43 ± 0.10 (0.135 ± 0.004)
B_0	4.93 ± 0.10 (0.194 ± 0.004)	4.98 ± 0.10 (0.196 ± 0.004)	4.83 ± 0.10 (0.190 ± 0.004)
B_1 max.	5.9 (0.232)	5.9 (0.232)	5.9 (0.232)
D_0	1.5 + 0.10/-0.00 (0.059 + 0.004/-0)	1.5 + 0.10/-0.00 (0.059 + 0.004/-0)	1.5 + 0.10/-0.00 (0.059 + 0.004/-0)
F	5.5 ± 0.05 (0.217 ± 0.002)	5.5 ± 0.05 (0.217 ± 0.002)	5.5 ± 0.05 (0.217 ± 0.002)
E_1	1.75 ± 0.10 (0.069 ± 0.004)	1.75 ± 0.10 (0.069 ± 0.004)	1.75 ± 0.10 (0.069 ± 0.004)
E_2 min.	10.25 (0.404)	10.25 (0.404)	10.25 (0.404)
T max.	0.6 (0.024)	0.6 (0.024)	0.6 (0.024)
T_1 max.	0.1 (0.004)	0.1 (0.004)	0.1 (0.004)
K_0	1.30 ± 0.10 (0.051 ± 0.004)	0.95 ± 0.10 (0.037 ± 0.004)	1.70 ± 0.10 (0.067 ± 0.004)
Leader min.	390 (15.35)	390 (15.35)	390 (15.35)
Trailer min.	160 (6.30)	160 (6.30)	160 (6.30)
Reel Dimensions			
A max.	185 (7.28)	185 (7.28)	185 (7.28)
N min.	50 (1.97)	50 (1.97)	50 (1.97)
W_1	12.4 + 2.0/-0.0 (0.488 + 0.079/-0.0)	12.4 + 2.0/-0.0 (0.488 + 0.079/-0.0)	12.4 + 2.0/-0.0 (0.488 + 0.079/-0.0)
W_2 max.	18.4 (0.724)	18.4 (0.724)	18.4 (0.724)



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